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ABSTRACT

The purpose of this study was to focus on features of spelling textbook instruction that were not included in an earlier investigation. This paper presents data gathered from further analysis of the same seven commercial series used in the previous assessment and discusses the scope and sequence of major instructional categories. The following selected categories, given minimal treatment in the earlier study, are subjected to a thorough analysis: (1) consonant clusters, (2) irregular words, (3) compound words, (4) homophones, (5) abbreviations, (6) contractions, and (7) syllabication processes. More than half the paper consists of appendixes that identify the seven spelling series studied, the grade level distribution of spelling elements in the seven series, the focus of exercises for grades one through six, and the occurrence of each of the seven selected categories in three or more series. (AEA)

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THE OCCURRENCE OF SELECTED FEATURES IN ELEMENTARY SPELLING TEXTS

Larry A. Gentry

ABSTRACT

Seven spelling series were examined to identify the relative emphasis accorded specific spelling skills. The scope and sequence of major instructional categories is presented and discussed. Selected categories, given minimal treatment in an earlier study, are subjected to critical analysis.

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THE OCCURRENCE OF SELECTED FEATURES IN ELEMENTARY SPELLING TEXTS

Larry A. Gentry

In their recent review of elementary school spelling practices, Fitzsimmons and Loomer (1978) state, ". . . if spelling instruction is to improve in schools, it will be the direct result of efforts by authors, publishers, researchers, teachers, and pupils" (preface). It is worth noting that Fitzsimmons and Loomer list "authors" and "publishers" before the other groups. This seems to suggest that the producers of commercial spelling materials wield more influence than scholars or school personnel in determining the nature of spelling curricula.

Other authorities have made similar observations. Petty (1967) notes that "actual procedures followed in the teaching of spelling throughout the country are considerably influenced by the commercial materials used" (p. 70). Tidyman, Smith, and Butterfield report that, "In common practice, the program of work in spelling centers in a spelling book" (p. 344).

The link between spelling instruction and commercial texts is deeply rooted in American educational history. Towery (1979) indicates that, from the colonial period until about 1820, "spellers were the single, most important resource in the American educational system" (p. 24). Early spellers contained lessons in reading, arithmetic, and other subjects, as well as spelling. The use of spelling books did not, however, decline with the publication of texts in the other school subjects. The best example of their

continuing influence was the popularity of Webster's famous "Blue-backed Speller" (i.e., The American Spelling Book). First published in 1783, it went through countless editions and reprintings, remaining in use for more than a century. While estimates vary, as many as 100 million copies of the "Blue-back" may have been circulated (Hanna, Hodges, & Hanna, 1971).

The early part of the twentieth-century saw the concomitant growth of the public schools and the American publishing industry. With the spelling-book curricula now firmly established in virtually every elementary classroom, the publishers had a ready market. In the ensuing decades, while spelling instruction moved between cycles of relative emphasis and de-emphasis, the text remained its primary medium. The central role that commercial spelling books continue to play in the curriculum is exemplified by the fact that the 1979 edition of El-Hi Textbooks in Print lists some 35 elementary spelling series, the products of 24 different publishers.

DIVERSITY IN CONTENT

As might be expected when so many publishers are competing for the attention of the education market, a considerable amount of diversity exists in the content of the various series. The disparate composition of different spelling texts has been noted by several authorities. Betts (1949) examined the vocabularies in eight spelling programs. He found a total of 8,652 words in the eight programs, but only 483 words that were common to all series. Ames (1965) conducted a vocabulary study of seven spelling series, and counted a total of 6,043 words; 1,283 words were common to all seven.

Cohen (1970) examined the structural analysis methods taught in nine sixth-grade spelling books. He found a substantial difference in the relative emphasis given different skills. In one book, for example, 46 percent of the content was devoted to affixes and inflectional endings. In another book, only 13.5 percent of the exercises dealt with that topic. Similarly, he discovered that the content devoted to "phonics" exercises ranged from a high of 58 percent in one book to a low 18.5 percent in another.

Graves (1977) replicated Cohen's study to see if spelling content had changed in the intervening years. While he perceived a general trend toward the inclusion of more "language arts" skills, he found that publishers still disagreed on specific areas of emphasis. The investigation revealed, for example, that the relative emphasis accorded affixes and inflectional endings ranged from 7.4 percent in one book to 31.4 percent in another; attention given "phonics" exercises ranged from 9.2 percent to 32.8 percent. Table 1 presents the results of both the Cohen and Graves studies.

Table 1

Percentages of Word Study Exercises in the Cohen Study

Word Study Exercises by Major Category	Textbooks and Copyright Dates (Merrill) 1957	(Webster) 1960	(Houghton Mifflin) 1955	(Silver Burdett) 1957	(Lyons & Carnahan 1959	(World Book) 1960	(Ginn) 1956	(McCormick-Mathers) 1958	(Row Peterson) 1961
1. Affixes and Inflectional endings	24.4	20.5	46.0	25.9	13.5	16.3	29.0	27.7	15.1
2. Syllabication	10.1	5.0	1.5	5.5	4.4	6.3	10.7	7.7	18.3
3. Phonics	18.5	47.7	24.4	30.5	42.4	58.0	25.4	38.0	22.2
4. Responding to the Meaning of the Word	19.7	13.7	10.5	18.1	24.4	6.5	16.6	16.6	9.1
5. Language Arts Skills	27.3	13.1	17.6	20.0	15.3	12.9	18.3	10.0	35.3

Percentages of Word Study Exercises in the Graves Study

Word Study Exercises by Major Category	Textbooks and Copyright Dates (Rand McNally) 1976	(American Book) 1976	(Harper Row) 1975	(McGraw Hill) 1976	(Harcourt Brace) 1974	(Lippincott) 1973	(Noble) 1971	(SRA) 1970	(Houghton Mifflin) 1971
1. Affixes and Inflectional endings	18.4	22.8	15.3	7.4	25.0	24.8	24.5	31.4	12.8
2. Syllabication	1.3	5.0	4.7	3.3	5.4	3.6	3.8	7.8	5.1
3. Phonics	32.8	32.6	22.7	27.6	23.0	9.2	21.1	15.8	30.7
4. Responding to the Meaning of the Word	27.1	11.1	24.8	9.7	14.2	11.6	16.6	23.0	19.6
5. Language Arts Skills	19.9	28.5	32.5	52.0	32.4	50.8	34.0	22.0	31.8

PVS SPELLING INVENTORIES

The diverse nature of spelling texts poses problems for the design of meaningful instruments for large-scale assessment. If more than one spelling series is employed at the same grade level in a school or a district, it can be assumed that not all students are receiving the same spelling instruction. Thus, large-group tests that do not adjust for this factor cannot be considered valid measurements of the effects of instruction. As Cronnell and Humes (in press) say, "To test students on what they have not been taught is unfair; analysis of the content and nature of instruction is a necessary preliminary step to designing tests that accurately assess learning."

One answer to this problem is the development of tests that reflect those factors common to the various spelling materials being used in a school or a district. This is the approach taken by SWRL in the design of its Proficiency Verification Systems (PVS) inventories. These inventories, developed for use in grades 1-6, are based on a computer-assisted analysis of the skills[1] taught in seven popular spelling series (see Appendix A).

The SWRL researchers subjected each text to a detailed, page-by-page analysis of instructional content. Using the spelling skills indices developed by Cronnell (1978), they coded each instructional exercise according to content category (e.g., short vowel, inflectional suffix) and, where appropriate, subcategory (e.g., /e/-e, -ing). These data were then processed by computer, resulting in a content-specific analysis of instruction at each grade level. The next phase

[1] As used in this paper, "spelling skills" refers to sound-to-spelling correspondences, spelling rules and principles, and other spelling-related content.

of the project entailed identifying the skills that were commonly taught in a majority of the series and determining the grade levels at which most students have encountered the skills. This information provided the basis for the construction of test items for each of the six PVS inventories. A more detailed description of the procedures involved in the project is provided in an earlier report (Gentry, 1979).

In developing the PVS inventories, the SWRL researchers were primarily concerned with two factors: (1) the classification of content, and (2) the grade levels at which skills are normally introduced. Minimal attention was given the relative emphasis of broad instructional categories (e.g., consonants, affixes) at any given level, or the number of exercises provided for specific skills. Additionally, certain spelling categories were given broad treatment in the study. Unlike more stable features, such as sound-to-spelling correspondences, these categories seem to reflect the individual preferences of the authors and publishers. Thus, the original study made no attempt to specify content relating to the following categories: (1) consonant clusters, (2) irregular words, (3) compound words, (4) homophones, (5) abbreviations, (6) contractions, and (7) syllabication processes.

The purpose of the present study is to focus on those features of spelling textbook instruction that were not included in the original investigation. This paper will present data gathered from further analysis of the same seven commercial series used in the development of the PVS inventories. The information gained from this analysis will

provide a better understanding of elementary school spelling instruction and will serve as a useful resource for the design of instruction-referenced assessments.

AN OVERVIEW OF SPELLING INSTRUCTION

While publishers differ in the relative emphasis that they accord the various skills, this investigation made it possible to discern the general pattern and sequencing of major skill areas as they occur across the elementary grades (see Appendix B). It was found, for example, that instruction in spelling consonants makes up an average of 61% of first grade exercises, drops to nine percent in second-grade, and remains relatively constant thereafter. An average of 12% of textbook content in both the second and third grades is devoted to the teaching of specific affixes. This percentage doubles in the fourth grade, remains constant in the fifth grade, and increases to a mean of 33% in the sixth grade. These data, reflecting concern with major categories of instruction, indicate that publishers are generally consistent in the sequencing of major skill areas and in balancing instruction in these elements from grade to grade.

The data presented in Appendices B-D permit certain observations regarding the scope and sequence of instruction. The first grade curriculum, for example, consists primarily of introducing the sound-to-spelling correspondences of consonants and short vowels. On the average, the seven spelling series devote 87% of their exercises to these features. Most of the series also include instruction in irregularly spelled words and the vowel-consonant-final _e_ spelling

pattern (e.g., name, home). Three series introduce consonant clusters at this level.

Second grade texts present a great deal of new instruction. Typically, almost 50 percent of the text is given to teaching a number of long-vowel spellings, basic suffixes (e.g., -s, -ing), and irregular words. All of the series teach some consonant digraphs at this level, and most give considerable attention to consonant clusters and diphthongs.[2]

After second grade, the introduction of new sound-to-spelling correspondences decreases markedly. The third grade texts introduce an average of 10 specific spellings (as compared to a mean of 27 in the second grade), but typically provide practice exercises for some 25 spellings that were taught previously. The review of long-vowel spellings and affixes receives particular emphasis at this and all higher levels (see Appendix B). Third graders do, however, receive an introduction to several new skills. All series include instruction in the rules governing the addition of suffixes (e.g., dropping final e, doubling final consonant). The spelling of some compound words, homophones, and contractions is also present in all third grade texts. Most books at this level include syllabication exercises and introduce the more common vowel-r spellings.

Fourth and fifth grade texts are similar in the types of content they contain. At both levels, affixes and rules of affixation

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[2]There is some disagreement as to which phonemes should be classified as diphthongs. As used in this paper, "dipthong" refers only to the following spellings: /oi/-oi, oy; /ou/-ou, ow.

constitute about one-third of the content. While a number of new spellings are introduced (an average of 12 in the fourth grade and 15 in the fifth grade), more than 70 percent of the exercises dealing with specific spellings is review of material previously taught. Fourth graders are introduced to abbreviations and pronunciation symbols, while fifth graders receive some instruction in the spelling of possessives.

Sixth graders receive little in the way of new spellings. Typically, five affixes, two long-vowel spellings, and alternate spellings for the schwa sound comprise most of the new instruction at this level. Some series place a great deal of emphasis on syllabication in the sixth grade, but overall, the review of previously learned affixes and affixation processes is the most characteristic feature of texts at this level. On the average, the seven series devote more than 40 percent of their sixth grade exercises to these last two elements.

SPECIFIC FEATURES

The previous section established the relative emphasis given certain major instructional elements by textbook publishers. There are, however, a number of features that, while found in virtually all spelling texts, are usually accorded more incidental treatment. These features include (1) consonant clusters, (2) irregular words, (3) compound words, (4) homophones, (5) abbreviations, (6) contractions, and (7) syllabication skills. One aspect of the present investigation involved an examination of each text to determine the precise content

of instruction in these areas. A compilation of the most common content for each of these skills is found in Appendices E-K. The remainder of this paper is concerned with a discussion of the treatment accorded them in the various series.

Consonant clusters are generally introduced in the second grade, although three series include some clusters in their first grade texts. One series presents final clusters in the first grade, but doesn't teach initial clusters until the third grade. There is little agreement as to which clusters should be taught or as to the appropriate grade level for any specific spelling. Only two initial clusters (i.e., sl and tr) and five final clusters (i.e., ft, mp, nd, nt, and st) are taught in all seven series. The lack of consensus as to appropriate grade level is exemplified by the fact that one series teaches the initial cluster sn in the first grade while another series doesn't present it until the sixth grade. None of the 38 clusters appearing in at least three of the series is introduced at the same grade level by all series teaching that element (see Appendix E).

Six series give considerable attention to teaching irregularly spelled words, while the remaining series provides no explicit instruction for this element. Only two irregular words (i.e., said and you) are common to the six. Ten irregular words are common to five series; another twelve are found in four, and 34 irregular words are common to three series. Several words that are taught as irregular are not commonly considered as such. Words such as boy, in, and my are often taught as irregular in the first grade so that students may use them in writing connected prose (see Appendix F).

Compound words are given significant treatment in all seven series, normally appearing initially in the second grade. Of the many hundreds of compound words taught collectively from the second through the sixth grades, only thirteen occur in all series. As with most spelling elements, there is a considerable deviation in the grade levels at which publishers teach these words. The compound without, for example, is introduced at four different grade levels. One series teaches without in the second grade, while another doesn't teach it until the sixth grade (see Appendix G).

Sixty homophone pairs are common to at least three series. No homophones are common to all seven, and only two (i.e., brake/break and to/too/two) are taught in six series. Unlike most of the spelling elements discussed in this section, homophones generally appear at similar grade levels in the various series (see Appendix H).

Each of the series teaches some abbreviations, but publishers vary widely in the treatment they give this element. While some publishers introduce a few of the more common abbreviations in the second or third grades, most concentrate instruction in the upper grades. One series teaches scores of abbreviations in the fourth grade and very few at any other level. Others scatter abbreviation exercises in a seemingly random fashion throughout their upper-grade texts. Curiously, only six abbreviations are common to all seven series: Ave., Dec., Feb., Nov., Oct., and Sept. (see Appendix I).

Thirty-eight contractions are taught in three or more series, with 18 of these appearing in all seven. All publishers introduce some

contractions in the third grade (e.g., can't and didn't are taught by six of the seven at this level), and most spread additional instruction throughout subsequent grades (see Appendix J).

The continuing controversy over the usefulness of instruction in syllabication is reflected by the differential treatment accorded this skill by the publishers. A few give syllabication a great deal of attention, while others grant it minimal space in their texts. None of the common syllabication techniques (e.g., dividing between doubled consonants) appear in all seven series. The only exercises common to all series pertained to (1) dividing three-syllable words, (2) identifying stressed and unstressed syllables, and (3) identifying the number of syllables by counting the number of vowel sounds (see Appendix K).

CONCLUSION

An examination of the data collected for this study reinforces the notion that, while publishers generally agree on the broad parameters of spelling instruction, there is little agreement regarding the specific content of instruction or the sequence in which content should be presented.

Those responsible for adopting spelling texts for classroom use should examine a variety of series carefully in order to assure articulation with local curriculum guidelines and benavioral objectives. Where the materials in use seem inadequate or inconsistent with preferred practice, it may be necessary for teachers to supplement textbook instruction through other methods.

Finally, those responsible for designing spelling assessments must be certain that their assessments match actual classroom instruction. Studies such as this one can provide curriculum data that will assist in the construction of meaningful and valid instruments.

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Tidyman, W. F., Smith, C. W., & Butterfield, M. Teaching the language arts. New York: McGraw-Hill, 1969.

Towery, G. M. Spelling instruction through the nineteenth century. English Journal, 1979, 68, 22-27.

Appendix A

SPELLING SERIES ANALYZED

Benthul, H. F., Anderson, E. A., Utech, A. M., & Biggy, M. B. Spell correctly. Morristown, NJ: Silver Burdett, 1971. (Only cosmetically different from a more recent edition.)

Glim, T. E. & Manchester, F. S. Basic spelling. (Revised edition.) Philadelphia: J. B. Lippincott, 1977.

Kottmeyer, W. & Claus, A. Basic goals in spelling. (Fifth edition.) New York: McGraw-Hill, 1976.

Madden, R. & Carlson, T. Harbrace spelling program. New York: Harcourt Brace Jovanovich, 1974.

Novicky, W. N. Dorocak, S., Faulhaber, M. C. Himes, M., McNernery, K., Petruziello, R., & Wolfert, R. Growth in spelling. River Forest, IL: Laidlaw, 1975.

Ort, L. L. & Wallace, E. E. Word book. Chicago: Rand McNally, 1976.

Thomas, O., Thomas, I. D., & Lutkus, A. The world of spelling. Lexington, MA: D. C. Heath, 1978.

Appendix B

GRADE LEVEL DISTRIBUTION
OF SPELLING ELEMENTS
IN SEVEN SPELLING SERIES

	Number and Percentage of Exercises											
	1st Grade		2nd Grade		3rd Grade		4th Grade		5th Grade		6th Grade	
Consonants	442	61%	141	9%	124	8%	134	7%	138	7%	67	4%
Consonant Clusters			78	5%	102	6%	65	4%	48	2%	50	3%
Consonant Digraphs			168	10%	69	4%	57	3%	68	3%	6	*
Short Vowels	184	26%	252	15%	21	1%	80	4%	54	3%	76	4%
Long Vowels	38	5%	353	22%	298	19%	271	15%	253	12%	154	9%
r-Controlled Vowels					99	6%	42	2%	56	3%	15	*
Diphthongs			67	4%	42	3%	32	2%	91	4%		
Endings			114	7%	48	3%	28	2%	61	3%	47	3%
Affixes			205	12%	198	12%	425	23%	493	24%	593	33%
Irregular Words	57	8%	198	12%	102	6%	85	5%	71	3%	65	4%
Compound Words			26	2%	96	6%	101	5%	85	4%	125	7%
Special Sets of Words							28	2%				
Homophones					80	5%	53	3%	72	3%	90	5%
Contractions					80	5%	36	2%	60	3%	58	3%
Possessives									23	1%	20	1%
Abbreviations							58	3%	66	3%	50	3%
Pronunciation Symbols							64	3%	63	3%	46	3%
Affixation Processes					123	8%	155	8%	201	10%	174	10%
Syllabication					57	4%	117	6%	188	9%	148	8%
Alphabetical Order			40	2%	43	3%						
Guide Words					24	1%	24	1%	8	*		
TOTAL	721	100%	1642	100%	1606	100%	1855	100%	2099	100%	1784	100%

*Less than one percent.

Appendix C

INTRODUCTION AND REPETITION
OF SELECTED SPELLING ELEMENTS*

		First Grade			Second Grade			Third Grade			Fourth Grade			Fifth Grade			Sixth Grade		
		Spellings	Exercises	Percentage of Exercises	Spellings	Exercises	Percentage of Exercises	Spellings	Exercises	Percentage of Exercises	Spellings	Exercises	Percentage of Exercises	Spellings	Exercises	Percentage of Exercises	Spellings	Exercises	Percentage of Exercises
Consonants	New	19	442	100%	3	82	63%	2	42	53%	2	39	46%	3	45	46%			
	Old				2	48	37%	2	38	47%	2	45	54%	2	47	51%	2	67	100%
Consonant Digraphs	New				5	168	100%	1	24	35%	1	19	33%						
	Old							3	45	65%	2	38	67%	3	68	100%	1	6	100%
Short Vowels	New	5	184	100%	1	30	12%				2	38	48%	1	21	39%			
	Old				5	222	88%	1	21	100%	2	42	52%	2	33	61%	1	19	100%
Long Vowels	New	3	38	100%	9	247	70%	2	30	10%				1	20	8%	2	25	16%
	Old				3	106	30%	11	268	90%	9	271	100%	9	233	92%	7	129	84%
r-Controlled Vowels	New							4	99	100%	1	20	48%	1	37	66%			
	Old										1	22	52%	1	19	34%	1	15	100%
Diphthongs	New				2	67	100%							2	34	37%			
	Old							2	42	100%	1	32	100%	2	57	63%			
Endings in root words	New				3	114	100%				1	28	100%	1	19	31%			
	Old							2	48	100%				1	42	69%	2	47	100%
Affixes	New				4	205	100%	1	48	24%	5	147	35%	6	99	22%	5	96	16%
	Old							4	150	76%	5	278	65%	10	394	78%	14	497	84%
TOTAL	New	27	664	100%	27	913	71%	10	243	28%	12	291	29%	15	275	24%	7	121	13%
	Old				10	376	29%	25	612	72%	22	728	71%	30	893	76%	28	780	87%

*Averages based on occurrences in seven spelling series (see Appendix D).

Appendix D

FOCUS OF EXERCISES
IN FIVE OR MORE SERIES

First Grade

	Skill	No. of Series	Exercises	Avg. per Series
1.	Irregular words	5	57	11.40
2.	/o/-o	7	43	6.14
3.	/a/-a	7	41	5.86
4.	/e/-e	7	38	5.43
5.	/u/-u	7	32	4.57
6.	/p/-p	7	31	4.43
7.	/i/-i	7	30	4.29
8.	/b/-b	7	29	4.14
	/g/-g	7	29	4.14
	/n/-n	7	29	4.14
11.	/d/-d	7	28	4.00
12.	/h/-h	7	27	3.86
13.	/r/-r	7	26	3.71
	/t/-t	7	26	3.71
15.	/f/-f	7	25	3.57
	/k/-c	7	25	3.57
17.	/l/-l	7	24	3.43
	/m/-m	7	24	3.43
19.	/v/-v	5	16	3.20
20.	/k/-k	7	22	3.14
	/w/-w	7	22	3.14
22.	/ā/-a...e	5	15	3.00
23.	/ī/-i...e	5	14	2.80
24.	/s/-s	7	17	2.43
25.	/z/-z	5	12	2.40
26.	/j/-j	7	15	2.14
	/y/-y	7	15	2.14
28.	/ō/-o...e	5	9	1.80

Appendix D (continued)

Second Grade

	Skill*	No. of Series	Exercises	Avg. per Series
1.	Irregular words*	7	198	28.29
2.	-s	7	113	16.14
3.	Clusters	6	78	13.00
4.	-er (root words)	5	41	8.20
5.	-ing	6	47	7.83
6.	/a/-a*	7	52	7.43
	/e/-e*	7	52	7.43
8.	/ou/-ou	5	37	7.40
9.	/e/-y	6	43	7.17
10.	/th-th	7	49	7.00
11.	Alphabetical order (1st)	6	40	6.67
12.	/u/-oo	6	39	6.50
13.	/i/-i*	7	44	6.29
14.	/ch/-ch	5	31	6.20
15.	/u/-oo	5	30	6.00
	/ou/-ow	5	30	6.00
17.	/a/-a...e*	7	41	5.86
	/e/-ee	7	41	5.86
19.	/l/-ll	7	40	5.71
	/u/-u*	7	40	5.71
21.	/o/-o*	6	34	5.67
22.	/sh/-sh	6	32	5.33
23.	/ng/-ng	5	26	5.20
	Compounds	5	26	5.20
25.	/i/-i...e*	7	35	5.00
	/o/-o	7	35	5.00
	-ed	6	30	5.00
28.	/k/-ck	5	23	4.60
29.	/hw/-wh	7	30	4.29
	/i/-y	7	30	4.29
	/o/-o...e*	7	30	4.29
32.	/o/-ow	6	25	4.17
33.	/a/-ay	7	29	4.14
34.	/k/-k*	7	27	3.86
35.	/e/-ea	5	18	3.60
36.	/e/-e	7	25	3.57
37.	/k/-c*	6	21	3.50
	/a/-ai	6	21	3.50
39.	/s/-ss	6	19	3.17
40.	-es	5	15	3.00
41.	/o/-oa	5	14	2.80
42.	CC/V__V	5	11	2.20

*Also emphasized in first grade.

Appendix D (continued)

Third Grade

	Skill*	No. of Series	Exercises	Avg. per Series
1.	Irregular words*	6	102	17.00
	Clusters*	6	102	17.00
3.	Compounds*	7	96	13.71
4.	Homophones	7	80	11.43
	Contractions	7	80	11.43
6.	Syllabication	6	57	9.50
7.	e dropped	7	63	9.00
8.	Doubling (1)	7	60	8.57
9.	-s*	6	48	8.00
10.	-er affix	7	48	6.86
11.	/ē/-y*	6	38	6.33
	-ing*	6	38	6.33
13.	/är/-ar	5	29	5.80
14.	/e/-ea*	7	40	5.71
15.	Misc. doubled consonants	6	34	5.67
16.	/ôr/-or	5	27	5.40
17.	/-ed*	6	32	5.33
18.	/ō/-o*	5	25	5.00
19.	Guide words	5	24	4.80
20.	-es*	7	32	4.57
21.	/ū/-oo*	6	27	4.50
22.	/e/-ee*	7	31	4.43
23.	/l/-ll*	5	22	4.40
	/ī/-igh	5	22	4.40
	/ėr/-ir	5	22	4.40
26.	/s/-c	5	21	4.20
	/ů/-oo*	5	21	4.20
28.	/ō/-ow*	7	29	4.14
29.	/ch/-tch	6	24	4.00
	/ou/-ou*	6	24	4.00
31.	Alphabetical order (1st)*	7	27	3.86
32.	/ā/-a...e*	6	23	3.83
33.	/ėr/-ur	6	21	3.50
34.	/sh/-sh*	5	17	3.40
	/ā/-ay*	5	17	3.40
36.	/s/-ss*	5	16	3.20
37.	/ā/-ai*	7	22	3.14
	/ī/-i...e**	7	22	3.14
39.	/ou/-ow*	6	18	3.00
40.	/ch/-ch*	6	17	2.83
	/ō/-oa*	6	17	2.83
42.	/ō/-o...e**	6	15	2.50
43.	Alphabetical order (2nd)	7	16	2.29
44.	/th/-th*	5	11	2.20
45.	CC/V V*	5	10	2.00
	/ī/-y*	5	10	2.00
47.	/ī/-ie	5	8	1.60
48.	Alphabetical order (3rd)	7	11	1.57

*The number of asterisks indicate the number of grade levels at which a skill has previously been emphasized.

Appendix D (continued)

Fourth Grade

	Skill*	No. of Series	Exercises	Avg. per Series
1.	Syllabication*	7	117	16.71
2.	Compounds**	7	101	14.43
3.	Irregular words***	6	85	14.17
4.	Clusters**	6	65	10.83
5.	-y	5	54	10.80
6.	-er*	6	64	10.67
7.	Abbreviations	6	58	9.67
8.	Pro. symbols	7	64	9.14
9.	-ed**	5	44	8.80
10.	-ing**	7	60	8.57
11.	-es**	7	59	8.43
12.	/ē/-ee**	6	50	8.33
13.	Homophones*	7	53	7.57
	e dropped*	7	53	7.57
	y to i	7	53	7.57
16.	/ē/-ea**	6	44	7.33
17.	-s**	7	51	7.29
18.	Contractions*	5	36	7.20
19.	-ly	6	42	7.00
20.	/ou/-ou**	5	32	6.40
21.	Doubling (1 syl.)*	5	29	5.80
22.	le	5	28	5.60
23.	/ū/-oo**	6	32	5.33
24.	Silent cons.	5	26	5.20
25.	/ō/-ow**	6	29	4.83
26.	/ā/-a...e***	6	28	4.67
27.	/ū/-oo**	5	23	4.60
	un-	5	23	4.60
29.	/ā/-ai**	6	27	4.50
30.	/är/-ar*	5	22	4.40
31.	Misc. doubled consonants*	6	24	4.00
	/ō/-oa**	6	24	4.00
	Guide words*	6	24	4.00
	/er/-are	5	20	4.00
	f(e) to ves	5	20	4.00
36.	/k/-ck*	6	23	3.83
37.	/ch/-ch**	5	19	3.80
	/sh/-sh**	5	19	3.80
	/e/-ea	5	19	3.80
	/u/-o	5	19	3.80
41.	/k/-c**	6	22	3.67
42.	/ī/-igh*	7	25	3.57
43.	/ī/-i...e***	6	21	3.50
44.	/j/-ge	6	20	3.33
45.	/kw/-qu	6	19	3.17
	/n/-kn	6	19	3.17
47.	re-	5	15	3.00
48.	Months (set)	6	17	2.83
49.	-en	5	13	2.60
50.	Days (set)	6	11	1.83
51.	/a/-a**	6	10	1.67

*The number of asterisks indicated the number of grade levels at which a skill has previously been emphasized.

Appendix D (continued)

Fifth Grade

	Skill*	No. of Series	Exercises	Avg. per Series
1.	Syllabication**	6	188	31.33
2.	e dropped**	7	92	13.14
3.	Compounds***	7	85	12.14
4.	Homophones**	6	72	12.00
	Contractions**	5	60	12.00
6.	Abbreviations*	6	66	11.00
7.	-er**	6	65	10.83
8.	Pronunciation symbols*	6	63	10.50
9.	Irregular words****	7	71	10.14
10.	Clusters***	5	48	9.60
11.	y to i*	7	60	8.57
12.	-s***	7	54	7.71
13.	-ed***	5	38	7.60
14.	-ing***	6	43	7.17
15.	-ly*	6	42	7.00
	-y*	6	42	7.00
17.	Silent consonants*	7	46	6.57
	-es***	7	46	6.57
19.	/ĕr/-er	6	37	6.17
20.	le*	7	42	6.00
21.	un-*	5	28	5.60
22.	/ch/-ch***	6	30	5.00
23.	/ē/-ea***	7	34	4.86
24.	/ou/-ow**	6	29	4.83
25.	/s/-c*	5	24	4.80
26.	/ou/-ou***	6	28	4.67
27.	/j/-ge*	5	23	4.60
	Possessives	5	23	4.60
	-ion	5	23	4.60
30.	/ā/-ai***	7	31	4.43
	Doubling (1 syl.)**	7	31	4.43
32.	/ô/-aw	5	21	4.20
	/u/-oo***	5	21	4.20
34.	/ā/-a...e****	7	29	4.14
35.	/ī/-i...e****	5	20	4.00
36.	/ē/-ee***	7	27	3.86
37.	/ch/-tch*	5	19	3.80
	/ėr/-ur*	5	19	3.80
	-al	5	19	3.80
40.	/kw/-qu*	6	19	3.67
	/z/-s	6	19	3.67
	/ō/-ow***	6	19	3.67
	el ending	6	19	3.67
	re-*	6	19	3.67
45.	/ō/-o...e***	5	18	3.60
	/oi/-oy	5	18	3.60
	f(e) to ves*	5	18	3.60
48.	-ful	7	24	3.43
49.	/j/-g	5	17	3.40
	/o/-o**	5	17	3.40
	/o/-oa***	5	17	3.40
	-en*	5	17	3.40
53.	/a/-a***	5	16	3.20
54.	/u/-u...e	7	20	2.86
55.	/ī/-igh**	6	17	2.83
56.	ex-	5	14	2.80
57.	/oi/-oi	6	16	2.67
58.	-or	5	12	2.40
59.	/m/-mb	5	9	1.80
60.	Guide words**	5	8	1.60
61.	-ar	5	7	1.20

*The number of asterisks indicate the number of grade levels at which a skill has previously been emphasized.

Appendix D (continued)

Sixth Grade

	Skill*	No. of Series	Exercises	Avg. per Series
1.	Syllabication***	6	148	24.67
2.	Compound words****	7	125	17.86
3.	Homophones***	7	90	12.86
4.	-ion*	7	85	12.14
5.	e dropped***	6	71	11.83
6.	Contractions***	5	58	11.60
7.	y to i**	7	76	11.29
8.	Irregular words*****	6	65	10.83
9.	Clusters****	5	50	10.00
	Abbreviations**	5	50	10.00
11.	Schwa (/ə/)	6	57	9.50
12.	-al*	7	59	8.43
13.	-er***	7	57	8.40
14.	-ly**	6	49	8.17
15.	Pronunciation symbols**	6	46	7.67
16.	-y**	7	53	7.57
17.	Misc. silent consonants**	6	39	6.50
18.	-s****	6	35	5.83
19.	-es****	6	32	5.33
20.	/ē/-ea****	5	24	4.80
21.	un-**	5	22	4.40
	-able	5	22	4.40
23.	le**	6	26	4.33
24.	-ful*	7	29	4.14
25.	Possessives*	5	20	4.00
	-or*	5	20	4.00
27.	-ity	5	19	3.80
28.	-ate	6	22	3.67
29.	/ā/-a...e*****	5	18	3.60
	/o/-oa****	5	18	3.60
	/ū/-u...e*	5	18	3.60
	-ing****	5	18	3.60
33.	el*	6	21	3.50
34.	-ness	5	17	3.40
35.	/ō/-o**	6	20	3.33
36.	-ment	5	16	3.20
	Doubling (1 syl.)***	5	16	3.20
38.	/e/-ea*	6	19	3.17
39.	/s/-c**	5	15	3.00
	/ā/-ai****	6	18	3.00
41.	/ē/-ie	6	16	2.67
	-ar*	6	16	2.67
43.	/n/-kn*	5	13	2.60
	/ē/-ee****	5	13	2.60
	re-**	5	13	2.60
46.	/ėr/-er*	6	15	2.50
47.	-en**	5	11	2.20
	Doubling (2 syl.)	5	11	2.20
49.	/ū/-ue	6	9	1.50
50.	/ch/-ch***	5	6	1.20

*The number of asterisks indicate the number of grade levels at which a skill has previously been emphasized.

Appendix E

CONSONANT CLUSTERS TAUGHT IN THREE OR MORE SPELLING SERIES

Initial Cluster	SERIES AND GRADE LEVEL						
	A	B	C	D	E	F	G
bl	5		2		2	2	2
br	1	3	2		2		2
cl	2		2	2	3	2	2
cr	5		2		2		2
dr	1	3	2		3	2	2
fl	1	4	2		4	2	2
fr	2	3	3		2		2
gl	1	4	2		2	2	2
gr	3	4	2		2	2	2
pl	1	3	2		2	2	2
pr	1		3		3		2
sc		5	4		6		5
sk	1		4		3	2	3
sl	1	5	2	2	2	2	2
sm	3		4		3		3
sn	1	6	4		2	2	3
sp	1	4	4		3	2	3
spl	5	5					4
st	1	4	2		2	2	2
str	3	3	3			4	3
sw	3	3	2		3	2	3
thr		6	4		3		
tr	1	4	2	2	2	2	2
tw	4	6	4				

Final Cluster	A	B	C	D	E	F	G
ct	4				6		5
ft	3	1	4	2	4	2	2
ld	4	6	4		2		
lk	4		4	2	2	2	2
lp	3	1		2	2	2	2
lt	3				4	2	2
mp	3	1	3	2	3	2	2
nd	2	1	3	2	2	1	2
nk	3	3	4		3		3
nt	2	1	3	2	2	1	2
pt	4				5		6
sk	3	3	4	2	2		2
sp		5	4		3		3
st	2	1	3	2	2	2	2

Appendix F

WORDS TAUGHT AS IRREGULAR IN
THREE OR MORE SPELLING SERIES

	SERIES AND GRADE LEVEL						
Word	A	B	C*	D	E	F	G
a		1			1	1	
again				3	2	3	4
answer	4			3			4
are		1		2	1		1
aunt	5					4	4
beauty	5			4		3	4
been	2	2		2		2	1
boy		1			1		1
buy	3			2		3	3
calm				4		6	5
come		2		2	1	2	1
dead	5			3		3	
do		2		1	1	2	1
does		2		2	2	2	1
done				2		3	1
door				2		3	2
dough				6		6	5
eye	3	2		2			
friend	5			2		2	4
from				2		2	1
front				3		3	1
give		1		2		3	2
goes					2	3	1
gone				2		3	2
great				3		3	3
have		1		2	1	2	1
height	5			6			6
herd	3			3	6		5
here				2	1	2	2
I		1				1	1
in					1	1	1
minute	5			3		5	
mother					1	2	1
move	3			2		3	
my					1	1	1
neither		6				3	6
ocean	5			4		5	4
of		1		1	1	2	2
once				3		3	3
one		1		2	1	2	1
said	2	1		2	2	3	2
saw		1				1	1
sew	5					6	4

*Series C does not explicitly teach irregularly spelled words.

Appendix F (continued)

	SERIES AND GRADE LEVEL						
Word	A	B	C	D	E	F	G
some		2		2	1	3	2
sure	4	2		3		3	
the		1			1	1	
their				2		3	1
there				2	1	2	
they				2	1	1	1
though	5			3			5
through	4			3			5
to		1		2	1		1
was		1		1	1	2	1
were				2		2	1
what		2		2	1		1
where		2		2			1
you	2	1		2	1	1	1
your	2			2	2	2	1

Appendix G

COMPOUND WORDS TAUGHT IN
FIVE OR MORE SPELLING SERIES

	SERIES AND GRADE LEVEL						
Compound Word	A	B	C	D	E	F	G
afternoon		3	3		3	4	3
aircraft	3	5		6	4	6	
airplane	3	5	3	3	2	4	3
airport	3	5		3	2	4	4
anybody	5	4	3	3	3	4	
anyone	3		3	3	2	4	
anything		4	3	3	2	4	4
anyway	4	5	3	3	4	6	4
anywhere	5	4	3	3	3		
baseball	4			3	3	3	2
basketball	4	3	5		4	4	4
bedroom		3		3	4	4	2
birthday	2	3	3	3	3	3	3
cowboy	3		6	3		3	5
downstairs	3	4	4	4	4		4
everybody	4	4	3		3	4	4
everyone	4	4	3	3	2	4	3
everything	4	4	3	3	2	4	3
everywhere	5	3	3		3		4
fireplace	4	4		5	4	5	5
football	3	4	3	3	3	3	2
grandfather	4	3	5	3	3	3	2
grandmother	4	3	4	3	3	3	2
himself	4	6	4	3	4		
inside	3		3	3	3	3	2
moonlight	3	3			4	5	4
newspaper	6			3	5	4	4
outdoors	3	4		4	5	4	3
outline	6	3	5		5	6	
outside	3	2	3	3	2	3	3
popcorn	4	5	4	4	5	4	4
post office	5	5	5		5	5	
railroad	4		5	4	4		4
sidewalk	4	3	3	3	5	3	5
somebody	5		3		2	3	3
somehow		2		3	2	3	4
someone			3	3	2	3	3
something	3		3	3	2	3	3
sometime	3	5	3	3	3	3	3
somewhere	3	2	3		3	3	4
sunshine	3	3	6	4	5		5
upstairs		4	4	4	5	4	2
without		2	6	3		4	3

Appendix H

WORDS TAUGHT AS HOMOPHONES
IN THREE OR MORE SPELLING SERIES

	SERIES AND GRADE LEVEL						
Homophone	A	B	C	D	E	F	G
ate - eight	2			3	3		2
beat - beet				3	4	3	
berry - bury				6	6	5	
berth - birth	6		6	6			
blew - blue	3	3		3	4	3	
brake - break	6	5		3	6	4	4
buy - by	3		2	2			
capital - capitol	5				5	6	
cent - sent	3		3	3	4		
creak - creek	5	5		5			
dear - deer	4	4	2	2	3	3	
desert - dessert	5	5				6	
die - dye	5			5	4	3	
fair - fare				5		4	6
flour - flower		4	3			4	4
forth - fourth	6			3	6		
hall - haul	5			3			5
heal - heel	5	5		3	6	5	
hear - here			2	2	2		
heard - herd	3	5		3	6		5
hole - whole	4			3	3		3
hour - our	3		4	3	3		
knew - new	3	4		2	3	3	
know - no	3	4		2		4	3
made - maid	5		4	3	5	3	
mail - male	3			2		3	5
main - mane	6			5	5	3	
meat - meet		5		3	3	3	
one - won	4		4	2			
pail - pale	4			3	4	3	
pain - pane	6			4	5	3	
pair - pear	3			4	3	3	3
peace - piece	5		3	4	5		3
pedal - peddle	6			4			4
peer - pier	6					5	6
plain - plane	5	6		4			4
right - write	3	4		2	3		3
ring - wring	5	4		5		5	
road - rode	3		2	2	3		
root - route		6		4	5	5	
sail - sale	4		3	3	4	4	
sea - see	4		3	3			
sew - so	5			3	5	6	
shone - shown	6			4	6		
soar - sore	6			4	4		4
sole - soul	6			5		6	5
son - sun	4			3		3	3
stake - steak	6	5		6	6		5
steal - steel	5			4		4	

Appendix H (continued)

	SERIES AND GRADE LEVEL						
Homophone	A	B	C	D	E	F	G
straight - strait	6	5			6		6
tail - tale	3		3	3		4	
their - there	3		2	2	2	3	
threw - through	4	5		3	4	3	
to - too - two	2	2		2	2	3	2
toe - tow			4	4	4	3	
waist - waste	6			4		5	
wait - weight	6	5		3		3	
weak - week	6		3	3		3	3
weather - whether		5			4	5	
wood - would	3	4	2	2			2

Appendix I

ABBREVIATIONS TAUGHT IN
THREE OR MORE SPELLING SERIES

Abbreviation	SERIES AND GRADE LEVEL						
	A	B	C	D	E	F	G
a.m. (ante meridiem)		6		4		5	6
adj. (adjective)	5	6		4	6		6
adv. (adverb)	4	6		4	6		6
ant. (antonym)	6			5			6
Apr. (April)				4	4	4	4
Aug. (August)	4			4	4	4	4
Ave. (Avenue)	5	6	5	4	6	5	6
Co. (Company)	5	6		4		5	6
D.C. (Dist, of Colum.)	5	6				4	
Dec. (December)	4	5	5	4	4	4	4
doz. (dozen)	5			4		6	
Dr. (Doctor)	4	6		4		5	6
etc. (et cetera)	6	6		4	6	5	6
Feb. (February)	4	5	5	4	4	4	4
Fri. (Friday)		6	4	4		4	3
ft. (foot)		6	5	4		5	6
gal. (gallon)	5			4		5	5
Jan. (January)		5	5	4	4	4	4
Jr. (Junior)		6		5		6	
lb. (pound)	4	6		4		5	6
Mar. (March)			5	4	4	4	4
mi. (mile)				4		5	6
Mon. (Monday)		6	4	4		4	3
Mr. (Mister)	3		3	4	2	3	6
Mrs. (Mistress)	3		3	4	2	3	6
Ms. (feminine title)				4		3	6
Mt. (Mount)	4			4		6	
n. (noun)	4	6		4	6		6
no. (number)	4	6		4	6	5	
Nov. (November)	4	5	5	4	4	4	4
Oct. (October)	4	5	5	4	4	4	4
oz. (ounce)		6		4		5	6
p.m. (post meridiem)	6	6		4		5	6
P.S. (postscript)	6			4	4	5	
qt. (quart)	5			4		5	6
Sat. (Saturday)	4	6	5	4		4	3
Sept. (September)	4	5	5	4	4	4	4
St. (Street)		6	5	4		5	6
Sun. (Sunday)		6		4		4	3
Thurs. (Thursday)	4	6	4	4		4	3
Tues. (Tuesday)		6	4	4		4	3
U.S. (United States)	5	6		4		4	
v. (verb)	4	6		4	6		6
Wed. (Wednesday)	4	6	4	4		4	3
yd. (yard)		6		4	6	5	6

Appendix J

CONTRACTIONS TAUGHT IN
THREE OR MORE SPELLING SERIES

	SERIES AND GRADE LEVEL						
Contraction	A	B	C	D	E	F	G
aren't	3	3	5	4	4	6	4
can't	3		3	3	3	3	3
couldn't	3	5	3	3	3	6	4
didn't	3	3	3	3	3	3	4
doesn't	3	3	5	4	4	6	3
don't	3	5	3	3	3	3	3
hadn't	4		5	4	5	6	
hasn't	4	3	5	4	5	3	
haven't	4	3	3		4	6	4
here's		5				3	5
he's	4	5	5	4	5	3	3
I'd	5	6	5	3	5	3	
I'll	4	3	3	3	3	6	3
I'm	3	3	3	3	3	3	3
isn't	3	3	3	3	4	3	4
it's	4	3	5	3	3	3	3
I've	4	3	6	3	4	3	4
let's	5		6	4	5		5
o'clock	4	3	5	3			3
she'll			3	4			3
she's	4	6	5		6		3
shouldn't		5	3	3	6	6	5
that's	6	5		4	3	6	4
there's	5	3	5	4	5	6	5
they're	5	3	5		6	6	5
wasn't	5	3	3	4	4	3	4
we'll	5	3	5	3	5		5
we're		3	5	4	5	3	5
weren't	5	5	3	4	5	3	5
we've	6	3	3	3	5	6	5
what's		5	5	4	6	6	
where's		5	5	4			
who's		5	5	4		6	
won't	4	4	3	3	3	3	4
wouldn't	3	5	3	3	3	6	4
you'll		3	5	3	5		5
you're	6	3	5	3	5	6	5
you've		3	5	3	5	3	5

Appendix K

SYLLABICATION SKILLS TAUGHT IN
THREE OR MORE SPELLING SERIES

Syllabication Skill	SERIES AND GRADE LEVEL						
	A	B	C	D	E	F	G
Dividing C^1/C^1 (e.g., rab-bit	3	5	5	3	3		4
Dividing C^1/C^2 (e.g., pic-nic)	3	5		3	3		4
Dividing V/CV (e.g., mu-sic)	4	5		3	3	4	4
Dividing VC/V (e.g., fin-ish)	3			3	3		
Dividing ___/Cle (e.g., ta-ble)	3			3	4		
Dividing compounds (e.g., side-walk)	4			6	3		
Dividing after prefix (e.g., re-turn)		5	4	3			3
Dividing before suffix (e.g., dur-ing)		5	4	6	6		
Dividing three-syllable words	5	5	4	4	4	4	5
Dividing four-syllable words	6	6		5	5		
Vowel sounds equal syllables	2	4	2	2	2	3	3
Stressed/unstressed syllables	2	6	3	3	3	3	4
Dictionary syllabication	4	4	4	4	3		